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PRE-APPEAL BRIEF REQUEST FOR REVIEW

Docket Number (Optional): BP 3114

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Signature: Diane Hudson

Typed or printed name: Diane Hudson

Application Number	Filed
10/802,015	3/16/04

First Named Inventor: Shahla Khorram

Art Unit	Examiner
2817	Takaoka, Dean

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheet(s).
Note: No more than five (5) pages may be provided.

I am the

- ☐ applicant/inventor.
- ☐ assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)
- ☒ attorney or agent of record. Registration number 33,534
- ☐ attorney or agent acting under 37 CFR 1.34. Registration number if acting under 37 CFR 1.34

/Timothy W Markison/ reg no 33,534
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Typed or printed name

808 665-1725
Telephone number

2/23/06
Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.

☒ *Total of 1 forms are submitted.

PATENT APPLICATION
IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Khorram
Serial No: 10/802,015
Filing Date: 3/16/04
Examiner: Takaoka, Dean
Art Group: 2817
Docket No: BP 3114
Title: TUNED TRANSFORMER BALUN CIRCUIT AND APPLICATIONS THEREOF

Date: 2/23/06

Pre-Appeal Brief Request for Review

1. In the Final Office Action dated December 8, 2005, the Examiner rejected claims 1 and 5 under 35 USC § 102 (b) as being anticipated by Dabrowski (U.S. Patent No. 5,644,272); claims 1 - 4 and 6 - 9 under 35 USC § 102 (e) as being anticipated by Rofougaran (U.S. Patent No. 6,809,581); and claims 6 and 10 under 35 USC § 103 (a) as being unpatentable over Dabrowski (U.S. Patent No. 5,644,272) in view of Dexter (U.S. Patent No. 6,654,595). Applicant respectfully believes that there is a clear deficiency in the prima facie case in support of this rejection and requests review of the allowability of claims 1-10.

2. Claims 1 and 5 have been rejected under 35 USC § 102 (b) as being anticipated by Dabrowski (U.S. Patent No. 5,644,272). The applicant respectfully disagrees with the present rejection because at least one claim element is not met by this reference.

Dabrowski teaches a circuit as shown in Figure 3 that includes a balun (striplines S11, S12, S21, and S22), transmission lines S3, S4, S5, and S6, and capacitors C1, C2, C3, C4, and C5. Dabrowski teaches at column 4, lines 34 – 46, symmetrical output ports 32 and 34 are connected to nodes 48 and 50 with lines S4 and S6. The proper choice of impedance values and electrical lengths for the transmission line elements S3 and S4 and capacitor value of C3 on one side and substantially the same impedance values and electrical lengths for transmission line elements S5 and S6 and capacitance value for C4 on the other side, determine an output impedance of the terminating balun circuit. Those skilled in the art will appreciate that the output impedance can be varied so that the

symmetrical ports provide maximal gain (power matching), minimal noise (noise matching) or a compromise between the two competing objectives depending on the application.

Dabrowski further teaches at column 4, lines 27 – 30, that capacitors C1 and C2 have values that are chosen based upon the desired operating frequency of the balun to provide proper matching and impedance transformation for the nonsymmetrical output of the balun.

As such, Dabrowski teaches the use of multiple transmission lines S3 – S6 in combination with capacitors C3 and C4 to establish the impedance of the symmetrical output of the balun and teaches the use of capacitors C1 and C2 to establish the impedance of the nonsymmetrical output of the balun.

In contrast, the tuned transformer balun circuit of claim 1 does not include transmission lines like transmission lines S3 and S5 of Dabrowski to help establish the output impedance, nor does it include a capacitor like C2 of Dabrowski to establish the impedance of the nonsymmetrical output of the balun. Instead, the tuned transformer balun of claim 1 includes a transformer balun, a first capacitor, a second capacitor, and a third capacitor coupled as claimed, wherein, based on loading of the single-ended winding and the differential winding of the transformer balun, the first, second, and third tuning capacitors resonate with the transformer balun. As such, the applicant believes that at least one claim element is not met by this reference.

Claim 5 is dependent upon claim 1 and introduces additional patentable subject matter in view of claim 1. The applicant believes that the reasons that distinguish claim 1 over the cited prior art are applicable in distinguishing claim 5 over the same art.

3. Claims 1 - 4 and 6 - 9 have been rejected under 35 USC § 102 (e) as being anticipated by Rofougaran (U.S. Patent No. 6,809,581). The applicant respectfully

disagrees with the present rejection because at least one claim element is not met by this reference.

In a response to an office action mailed on 7/13/05, the applicant amended the claims to remove the "operably coupled" phrase and inserted the word "coupled". As such, the Examiner's argument that the capacitors C1 and C2 of Rofougaran being "operably coupled" to ground via transistors T3 and T4 and inductors L3 and L4 is no longer valid since, as amended, the second and third capacitors of the present claims are "coupled" to ground, thus cannot be coupled to ground via intervening components such as transistors and inductors as taught in Rofougaran. As such, the applicant believes that at least one claim element is not met by this reference.

4. Claims 6 and 10 have been rejected under 35 USC § 103 (a) as being unpatentable over Dabrowski (U.S. Patent No. 5,644,272) in view of Dexter (U.S. Patent No. 6,654,595). The applicant respectfully disagrees with the present rejection because at least one claim element is not met by this reference.

As discussed above with reference to claim 1, Dabrowski teaches the use of multiple transmission lines S3 – S6 in combination with capacitors C3 and C4 to establish the impedance of the symmetrical output of the balun and teaches the use of capacitors C1 and C2 to establish the impedance of the nonsymmetrical output of the balun. Since at least one claim element is not meet by Dabrowski as asserted by the Examiner, combining the teachings of Dabrowski with Dexter fails to render claim 6 obvious.

Claim 10 is dependent upon claim 6 and introduces additional patentable subject matter in view of claim 6 The applicant therefore believes that the reasons that distinguish claim 6 over the cited prior art are applicable in distinguishing claim 10 over the same art.

RESPECTFULLY SUBMITTED,

By: /Timothy W. Markison reg. 33,534/
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CERTIFICATE OF MAILING

37 C.F.R 1.8

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2-23-06 Diane Hudson

Date Signature